

LOEWE

VV6002M

MODEL

OWNERS MANUAL

Dear Customer

May we take this opportunity to thank you for purchasing this Panasonic Video Cassette Recorder.

We would particularly advise that you carefully study the Operating Instructions before attempting to operate the unit and that you note the listed precautions.

Auto Setup

Connect the aerial lead and the mains lead.
(See page 8.)

Turn on the VCR.

Auto Setup is finished.

Video Plus+ Programming System

Programming is now easier than ever: simply enter the PlusCode provided in the programme schedule column carried by newspapers and magazines.

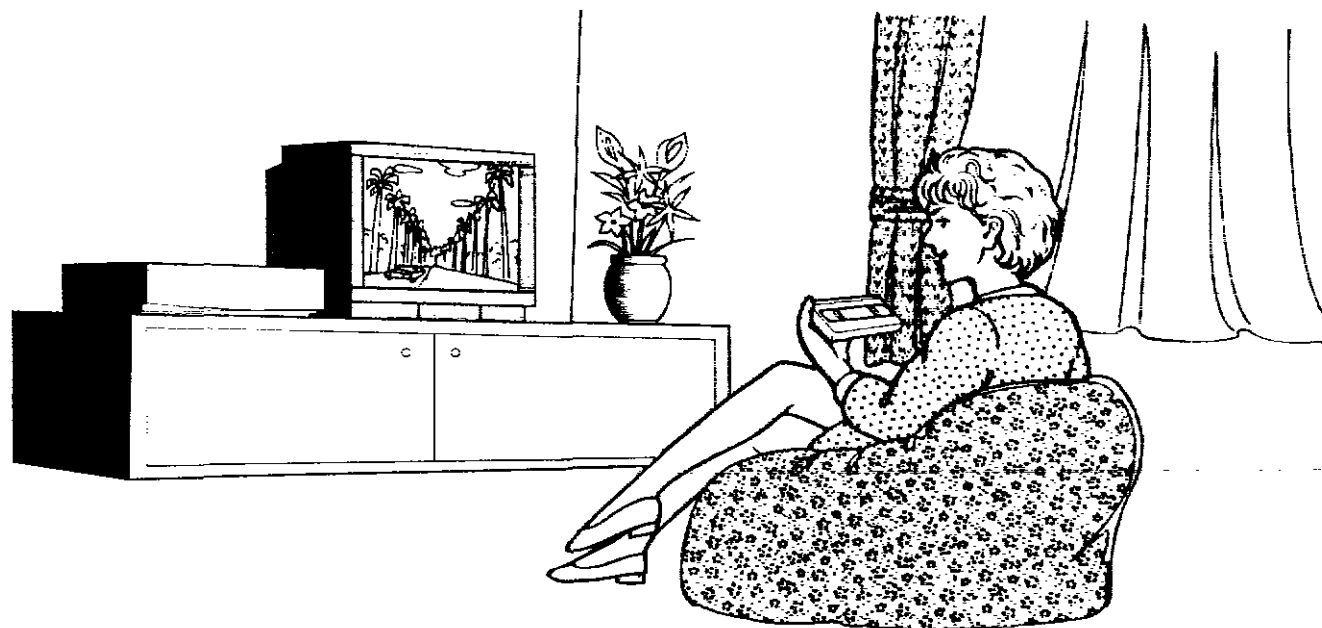
•Video Plus+ and PlusCode are trademarks of Gemstar Development Corp. Video Plus+ system is manufactured under license from Gemstar Development Corporation.

Crystal View Control

Introducing Crystal View Control, and innovative new technology for high picture quality. This technology uses an microprocessor to intelligently control the relationship between the tape heads and circuitry, bringing out the maximum performance of each. The result is consistently optimum picture quality.

HQ (High Quality) Picture System

Video recorders carrying the HQ symbol mark feature the new VHS High Quality Picture System. This system assures complete compatibility with VCRs that use the conventional VHS system.



Contents

IMPORTANT

Your attention is drawn to the fact that the recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

WARNING

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

FOR YOUR SAFETY

■ DO NOT REMOVE OUTER COVER.

To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

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Caution for AC Mains Lead

For your safety please read the following text carefully

This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 5 amp fuse is fitted in this plug. Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS 1362. Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be purchased from your local Panasonic Dealer.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMP SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstance should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol

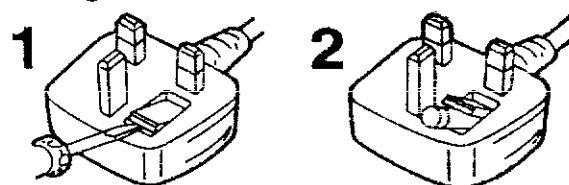


How to replace the Fuse

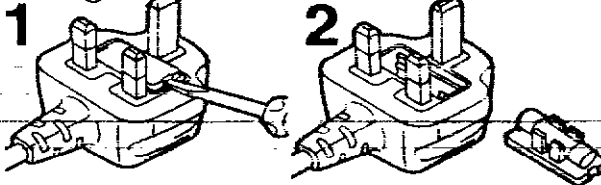
• There are two types of the AC Mains Lead assembly: (A) and (B) as shown below.

- 1 Open the fuse compartment with a screwdriver.
- 2 Replace the fuse and fuse cover.

TYPE (A)



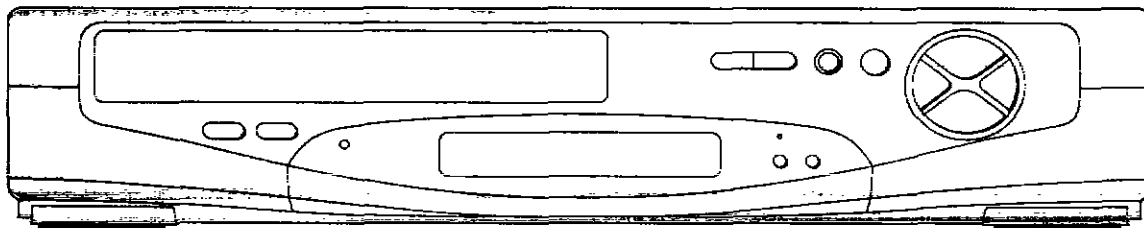
TYPE (B)



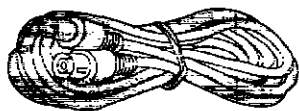
Unpacking

*Caution for AC Mains Lead
Unpacking*

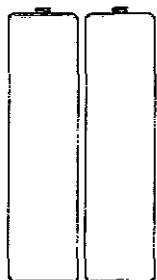
Check and identify the supplied accessories, and then set up this VCR after reading "Setting up".



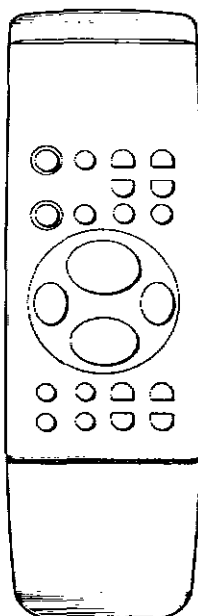
☐ RF coaxial cable for connecting between this VCR and a TV (1 pc.)
VJA0710-1 or VJA0728



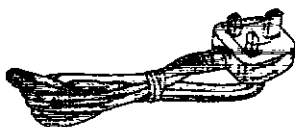
☐ Batteries for the remote controller (2 pcs.)
UM3 or R6 type



☐ Remote controller (1 pc.)
VEQ1657



☐ AC mains lead (1 pc.)
VJA0733



Connections

This tells you how to connect with an aerial, TV, etc.

Tuning the TV to your VCR

The VCR supplies a signal to the TV set via the RF coaxial cable on channel 36 of the UK broadcasting system. Your TV must be tuned into this channel in order to view the VCR playback picture.

If the connection to the TV includes the 21-pin scart cable, the playback picture can be viewed by selecting **AV** on your TV. The RF coaxial cable must still be connected as shown on page 8, but the TV need not be tuned to channel 36.

Auto Setup

When the VCR is turned on after connecting the aerial lead and the mains lead, Auto setup (Auto tuning and Auto clock setting) starts.

Infra-red Remote Controller

Controls and Connection Sockets

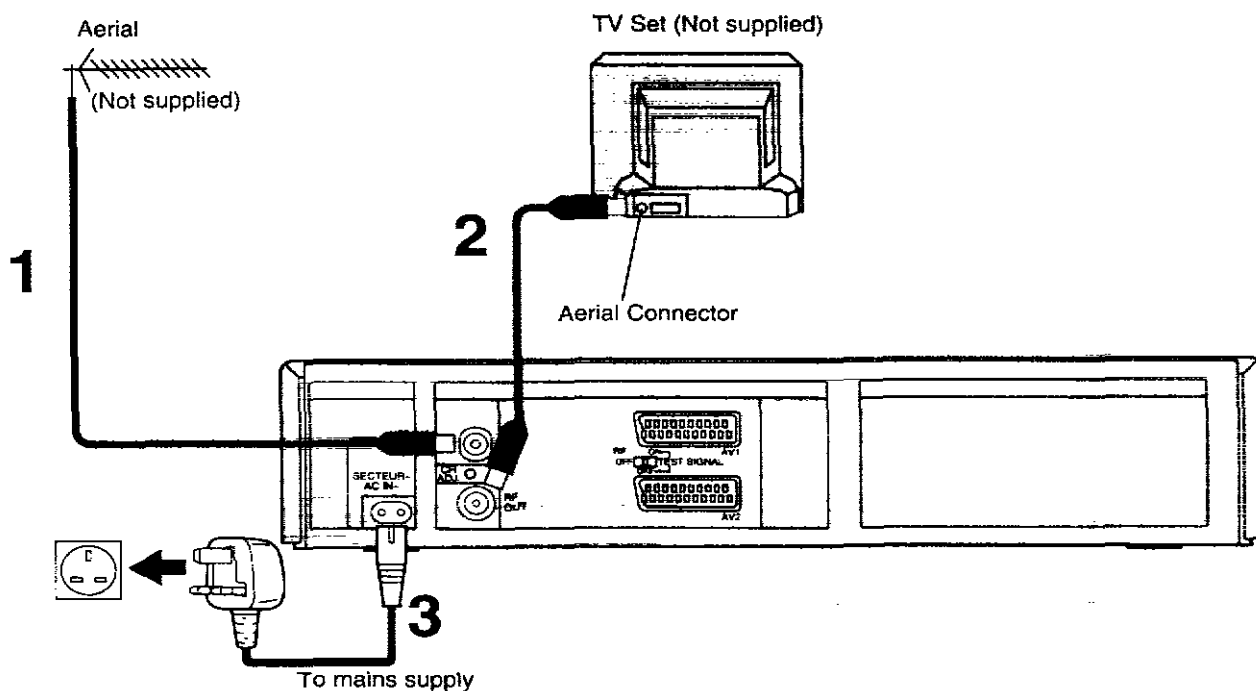
This gives a detailed explanation of the function of each button, switch and connection socket.

Connections

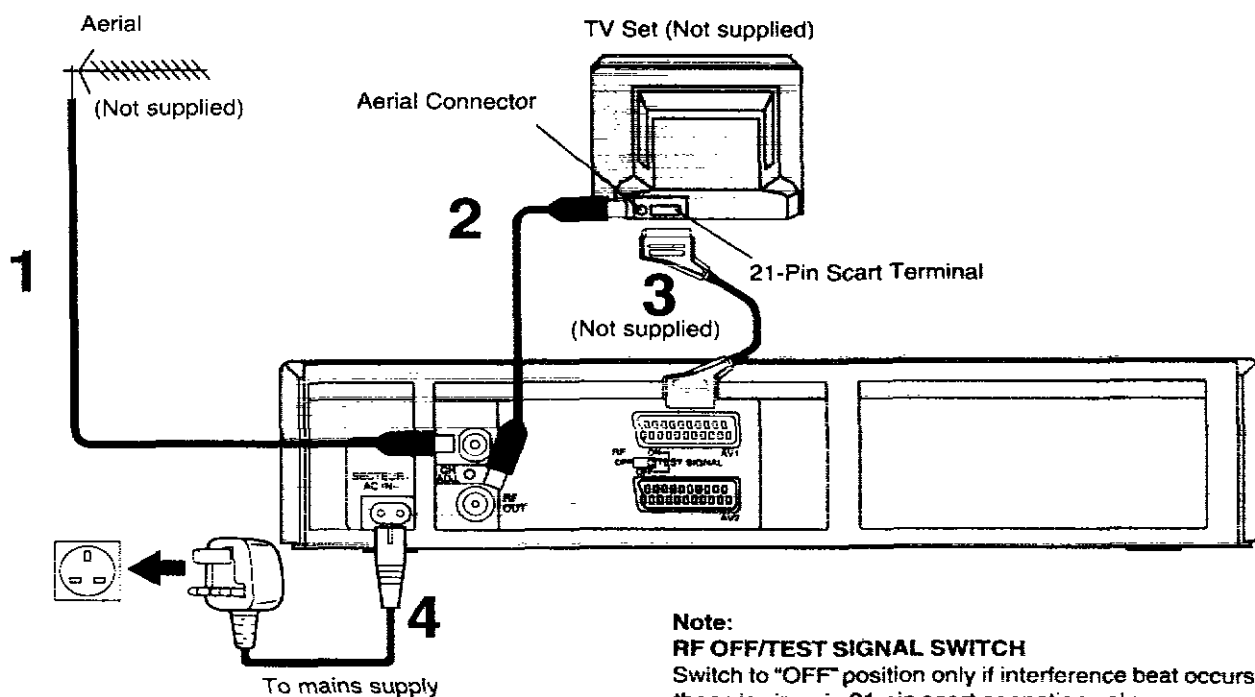
This tells you how to connect with an aerial, TV, etc.

Basic Connections

The following connections are required to record and play back the VCR through TV set:



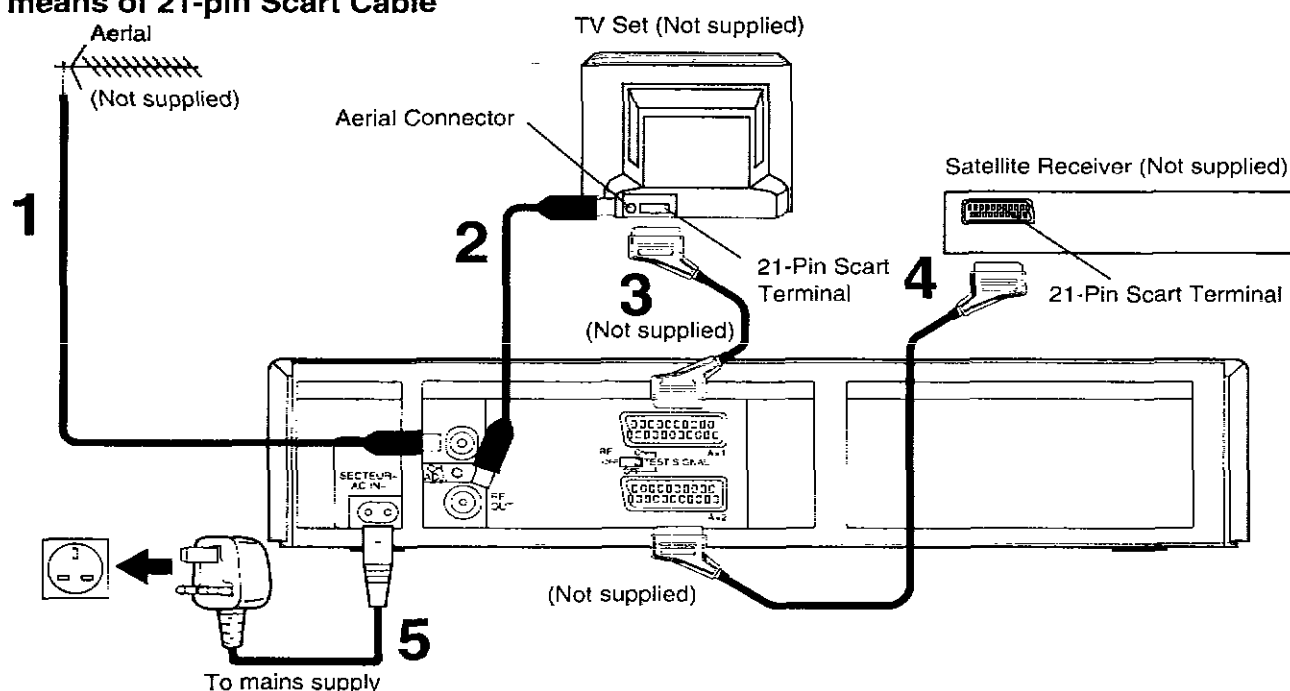
Connection to a TV Set with 21-Pin Scart Terminal



Note:
RF OFF/TEST SIGNAL SWITCH
Switch to "OFF" position only if interference beat occurs, then viewing via 21-pin scart connection only.

Connection to a Satellite Receiver

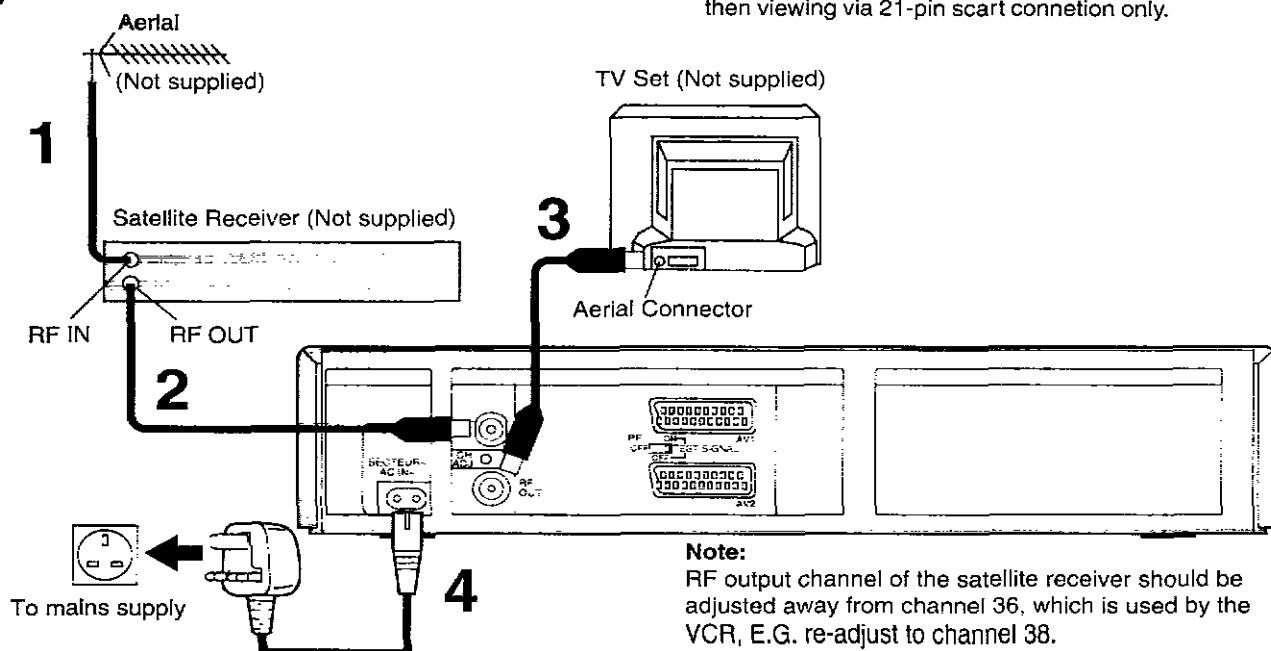
•By means of 21-pin Scart Cable



Note:

"RGB" is an abbreviation for "RED/GREEN/BLUE" signals. If the TV with RGB input capability is connected to AV1 and the unit with RGB output capability is connected to AV2, the TV can receive RGB signal from the unit through the VCR.

•By means of RF Coaxial Cable



- Use full-wired 21-pin AV cables for the connection.
- Selection of RGB or normal video output is done by the external equipment connected to AV2 terminal.

Note:

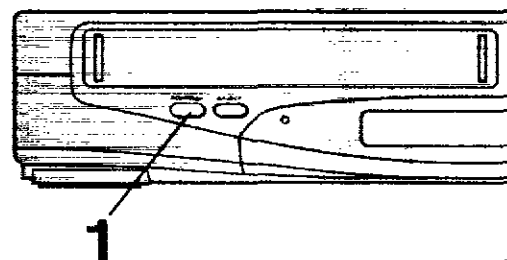
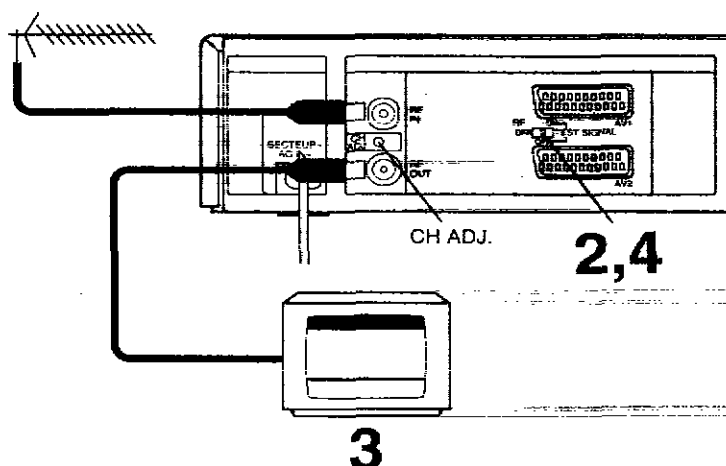
RF OFF/TEST SIGNAL SWITCH

Switch to "OFF" position only if interference beat occurs, then viewing via 21-pin scart connetion only.

Note:

RF output channel of the satellite receiver should be adjusted away from channel 36, which is used by the VCR, E.G. re-adjust to channel 38. Also select "SKY ONE" or "SKY NEWS" on the satellite receiver to ensure reliable tuning before starting the Auto Setup.

Tuning the TV to your VCR



It is possible to view the video picture on your TV in the same way that you watch TV broadcasts.

If you have connected the VCR to the TV through the 21-pin scart terminal, then you do not need to follow the procedure mentioned below.

Preparation

- Turn on the TV.
- Refer to the operating instruction of the TV set and carry out tuning/preset procedure.

Operations

1



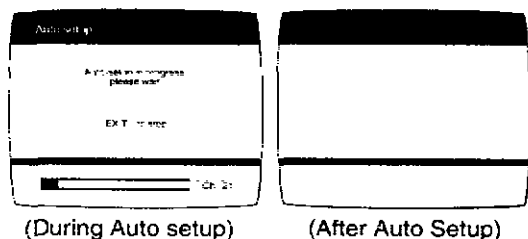
Turn on the VCR.

2



To generate a test pattern, set **RF OFF/TEST SIGNAL** to **TEST SIGNAL ON**.

3



(During Auto setup)

(After Auto Setup)

Set the TV to an unused position which you wish to use for your video playback.

- Tune the TV until the test pattern appears on the screen.
- On Panasonic TV the programme number 0 should be selected to obtain best performance.
- When the VCR is turned on after connecting the aerial lead and the mains lead, Auto setup (Auto tuning and Auto clock setting) starts. (See next page.)

4



Set **RF OFF/TEST SIGNAL** to **TEST SIGNAL OFF**.

Note:

The test signal is transmitted on channel 36 of the UK broadcasting channels. If you are encountering interference from another broadcast on the video channel, you may readjust to a free channel (30–42) by using the **CH ADJ.** screw which is located on the rear of the VCR.

Please note that if the **CH ADJ.** screw is used then you will have to retune your TV to the test signal as in item 2 to 4 above.

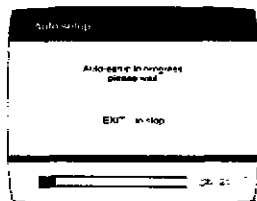
Auto Setup

Tuning the TV to your VCR
Auto Setup

Auto Setup

When the VCR is turned on after connecting the aerial lead and the mains lead, Auto setup (Auto tuning and Auto clock setting) starts.

On Screen Display



- The Auto setup is searching for TV station from minimum to maximum and memorizing the data for every programme position.
- The Auto setup takes two or more minutes to complete the search for TV station and the clock setting.
- If the clock setting screen appears after auto setup has been completed, refer to page 36 and proceed with the setting.

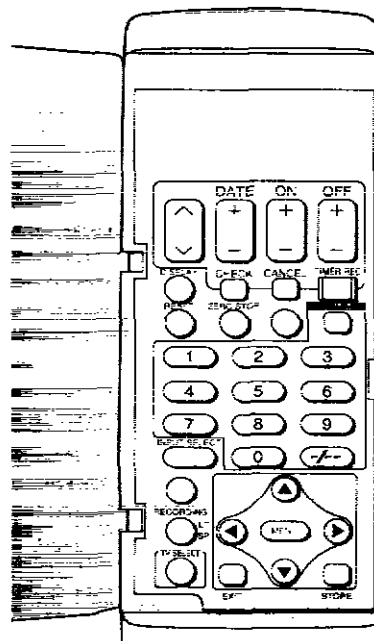
Note:

If VCR is not correctly set by Auto setup, see **Various Settings** on pages 30, 31 and 36.

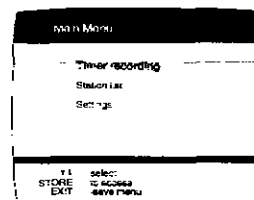
Viewing the TV station list

Preparations

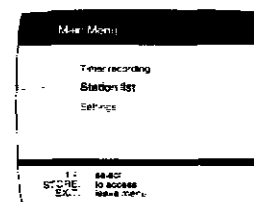
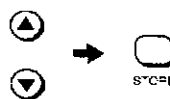
- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.



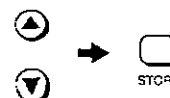
1 Press MENU.



2 Select Station list.

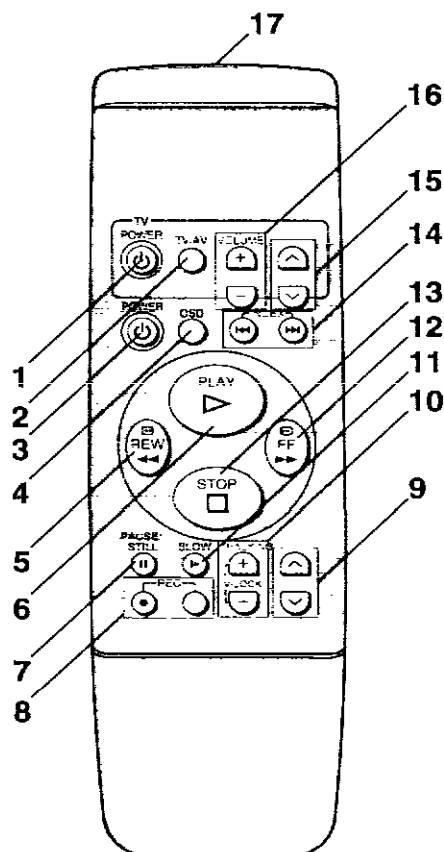


3 Select the desired TV station, if you want to view the broadcast.



Station list					
Pos	Name	Ch	Pos	Name	Ch
1	BBC1	22	11	CNN	52
2	BBC2	23	12	MTV	53
3	ITV	24	13	SEVC	54
4	CH-AN4	25	14	POST14	55
5	SAC5	26	15	POST15	56
6	CH-AN5	21	16	POST16	57
7	CH-AN5	21	17	-----	-----
8	CH-AN5	21	18	-----	-----
9	CH-AN5	21	19	-----	-----
10	SAT	51	20	-----	-----

Infra-red Remote Controller



1 POWER (TV)

To switch the TV from on to standby mode or vice versa. In standby mode, the TV is still connected to the mains.

- With some TV models, it may only be possible to switch the TV to standby mode using this button. In this case, use **TV/AV** or **∇ ∆ (TV)** to switch the TV on.

2 TV/AV

To select the TV input.

3 POWER (VCR)

To switch the VCR from on to standby mode or vice versa. In standby mode, the VCR is still connected to the mains.

4 OSD

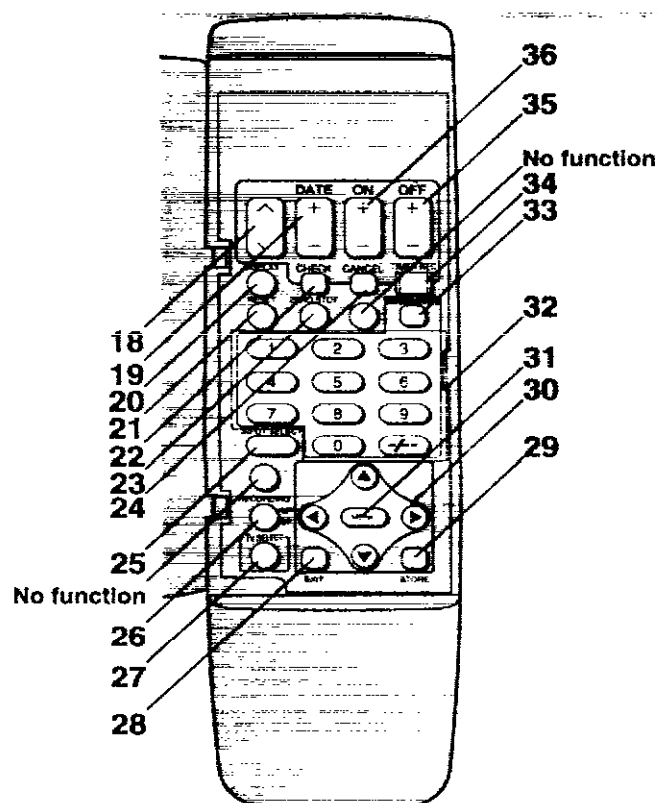
For the On Screen Display Function.

5 REW (REWIND)

In the stop mode: To rewind the tape.
In the playback mode: To search backward.
In the rewind mode: To obtain high speed picture.
“<<” is lit.

6 PLAY

To start playback. “>” is lit.



7 PAUSE/STILL

During playback: Still picture.
During recording: To interrupt recording.

8 REC

To start a recording.
•Press both buttons simultaneously.

9 ∇ ∆ (VCR)

To select the required programme position (TV station) of the VCR.

10 TRACKING/V-LOCK

To adjust the tracking and the vertical locking.
(See page 19.)

11 SLOW

For the slow motion playback function. “>>” is lit.

12 FF (FAST FORWARD)

In the stop mode: To fast forward the tape.
In the playback mode: To search forward.
In the fast forward mode: To obtain high speed picture.
“>>>” is lit.

13 STOP

To stop any playback or recording.

14 INDEX

For the index search function.

- 15** $\vee \wedge$ (TV)
To select the required programme position (TV station) of the TV.
- 16** **VOLUME**
To adjust the volume of the TV.
- 17** **Infra-red Transmitter**
The programming data are transmitted from here to the VCR.
- 18** $\vee \wedge$
To programme a timer recording.
- 19** **DATE**
To programme a timer recording.
- 20** **DISPLAY**
To change the indication on the VCR Display.
→Clock→Counter→Remaining Tape Time→
- 21** **RESET**
To reset the tape counter (elapsed time) to "0:00.00".
•The tape counter is automatically reset to "0:00.00" when a video cassette is inserted.
- 22** **CHECK**
To set and check timer programmes.
- 23** **ZERO STOP**
For the zero stop function.
- 24** **CANCEL**
To cancel the settings made for a timer recording.
- 25** **INPUT SELECT**
To select the A1 or A2 external recording source.
- 26** **RECORDING SP/LP**
To select the tape speed desired for recording.
SP gives the best picture quality.
LP gives the longest recording time.
- 27** **TV SELECT**
To set the remote controller for operation of the TV.
- 28** **EXIT**
To make On Screen Display disappear on the TV screen.
- 29** **STORE**
To make selections from On Screen Display.
- 30** $\blacktriangle \blacktriangledown \blacktriangleleft \blacktriangleright$
To make selections from On Screen Display.
- 31** **MENU**
To make On Screen Display **Main Menu** appear on the TV screen.
- 32** **Programme Position Selector Buttons**
•To select the programme positions (1–99).

9:

19: → →

- To enter a PlusCode.

- 33** **VIDEO PLUS+**
For programming the Video Plus+ PlusCode.
- 34** **TIMER REC**
To turn the timer recording function on and off.
 is lit or not lit.
Once operating timer recording function, the normal VCR operation is not possible unless this button is set to off.
- 35** **OFF**
•To programme a timer recording.
•To set the manufacturer number of the TV.
- 36** **ON**
To programme a timer recording.

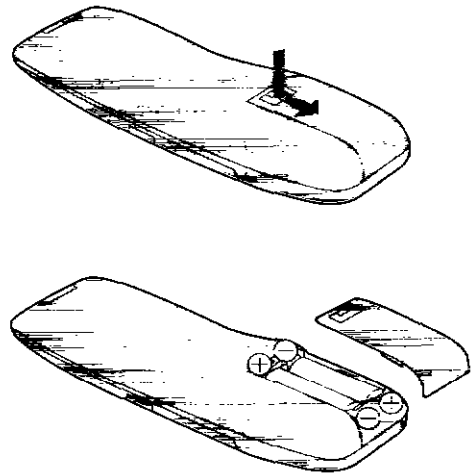
Power Source for the Remote Controller

The remote controller is powered by 2 "AA", "UM3" or "R6" size batteries. The life of the batteries is about one year, although this depends on the frequency of use.

Precautions for Battery Replacement

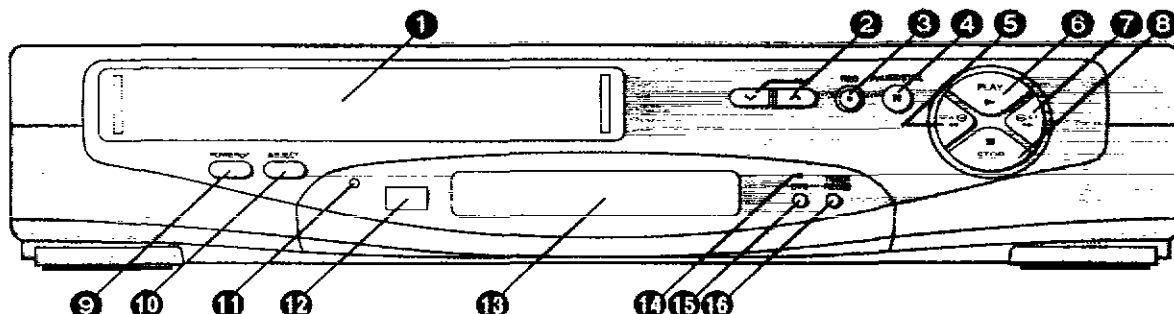
- Load the new batteries with their polarity ($\oplus$ and $\ominus$) aligned correctly.
- Do not apply heat to the batteries, or an internal short-circuit may occur.
- If you do not intend to use the remote controller for a long period of time, remove the batteries and store them in a cool and dry place.
- Remove spent batteries immediately and dispose of them.
- Do not use an old and a new battery together, and never use an alkaline battery with a manganese battery.

Installing the Batteries



Controls and Connection Sockets

This gives a detailed explanation of the function of each button, switch and connection socket.



1 Cassette Compartment

Insert a video cassette here.

2 V ^

To select the required programme position (TV station).

3 REC

To start a recording.

4 PAUSE/STILL

During playback: Still picture.

During recording: To interrupt recording.

5 REW (REWIND)

In the stop mode: To rewind the tape.

In the playback mode: To search backward.

In the rewind mode: To obtain high speed picture.
"◀◀" is lit.

6 PLAY

To start playback. "▶" is lit.

7 FF (FAST FORWARD)

In the stop mode: To fast forward the tape.

In the playback mode: To search forward.

In the fast forward mode: To obtain high speed picture.
"▶▶" is lit.

8 STOP

To stop any playback or recording.

9 POWER

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still connected to the mains.

10 EJECT

To eject a video cassette.

11 Standby indicator

This indicator is lit when the VCR is turned off or the VCR is timer recording standby mode.

12 Infra-red Remote Control Receiver Window

13 Display

14 CVC Indicator

When the CVC function is on, this indicator is lit.

15 CVC (Crystal View Control)

ON: Using the CVC function, playback is performed in the state which achieves optimum picture quality in light of characteristics of a tape.

•The CVC indicator is lit.

•This control should normally be left in the ON position.

OFF: Turn off the CVC function.

•The CVC indicator is not lit.

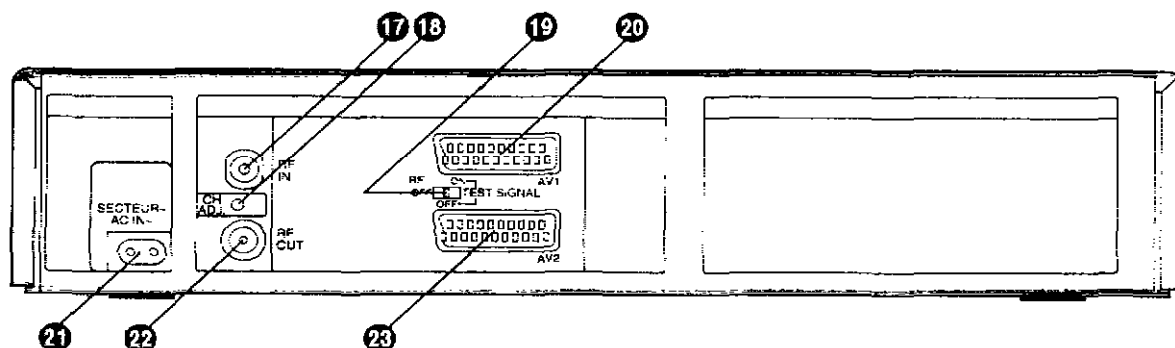
•With certain tapes, the OFF position may result in a better picture.

16 TIMER REC

To turn the timer recording function on and off.

 is lit or not lit.

Once operating timer recording function, the normal VCR operation is not possible unless this button is set to off.



17 RF IN

To connect to the external aerial.

18 CH ADJ.

To adjust the RF transmitting channel 30–42.

19 RF OFF/TEST SIGNAL

RF OFF: Set to this position when the VCR is connected to the TV via the 21-pin scart cable.

TEST SIGNAL OFF:

Set to this position when the VCR is connected to the TV via the RF coaxial cable only.

TEST SIGNAL ON:

Set to this position when tuning the TV into the VCR.

The test signal is transmitted on channel 36 initially.

20 AV1

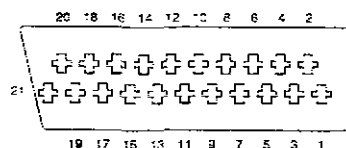
This 21-pin scart terminal carries input and output signals for both picture and sound. TV sets equipped with a similar socket can be connected here.

This is also called Scart

Peritel

Euro Connector

Euro AV



1 AUDIO OUTPUT	13 RED GROUND
2 AUDIO INPUT	14 BLANKING
3 AUDIO OUTPUT	GROUND
4 AUDIO GROUND	15 RED
5 BLUE GROUND	16 BLANKING
6 AUDIO INPUT	17 VIDEO OUTPUT
7 BLUE	GROUND
8 SWITCHING VOLTAGE	18 VIDEO INPUT
9 GREEN GROUND	GROUND
10 No connection	19 VIDEO OUTPUT
11 GREEN	20 VIDEO INPUT
12 No connection	21 GROUND

Note: RED, GREEN and BLUE are inputs only.

21 AC IN~

To connect to the main power supply.

22 RF OUT

To connect to the aerial terminal on a TV set.

23 AV2

To connect to a decoder or another VCR.

• Only used as the input socket.

• The 21 pin list is same with AV 1.

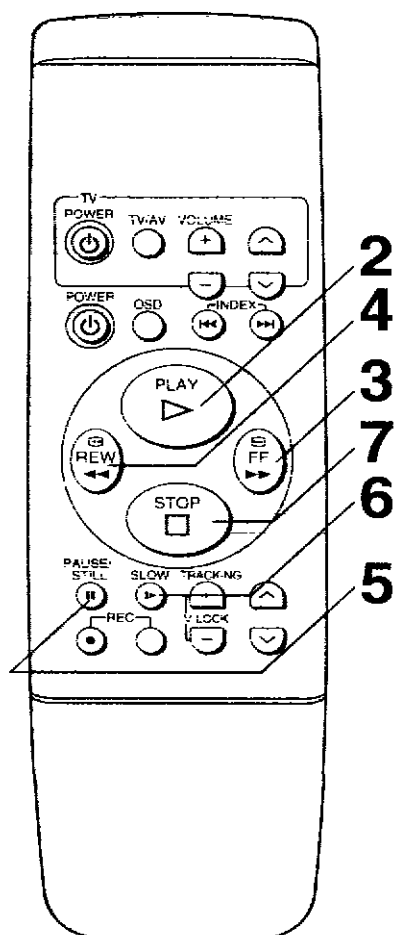
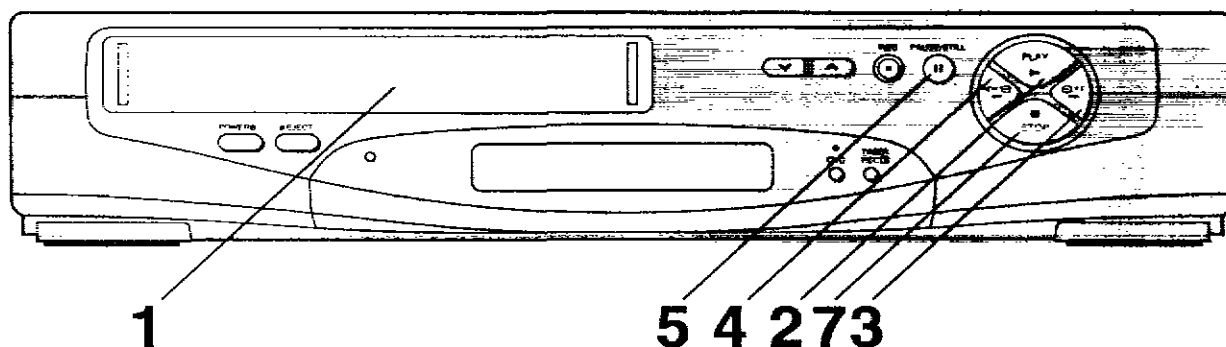
Basic Operations

Playback

Manual Recording

Basic Operations

Playback



Operations	Display Symbols
1 	 Insert a recorded cassette tape.
2 	 Start viewing the picture.
3 	 Search forward by briefly pressing FF. •To change back to normal playback, press PLAY .
4 	 Search backward by briefly pressing REW. •To change back to normal playback, press PLAY .
5 	 View a still picture. •To continue the normal playback, press PLAY or PAUSE/STILL .
6 	 View the slow motion picture. •To continue the normal playback, press PLAY .
7 	Stop viewing the picture.

Other Playback Functions

To obtain High Speed Picture during Fast Forward or Rewind

Keep **FF** pressed during fast forward.
Keep **REW** pressed during rewind.



To return to a Specified Scene

1 Press **RESET** to set the counter to 0:00.00.



2 After playback, press **ZERO STOP** in the stop mode.

- The tape will be rewound or fast forwarded to 0:00.00 approximately.



To find the Beginning of Each Recording Recording Index Signals

Index signals are recorded in following cases.

- When a recording is started by pressing **REC**.
- When **REC** is pressed during recording.
- When timer recording is activated.

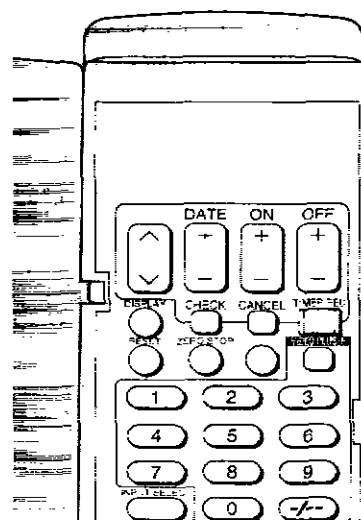
For example:

Searching for the 2nd recorded segment in the forward direction.

Press **INDEX**  twice during playback or stop mode.



- After finding the specific recorded segment, playback starts automatically.
- For the reverse direction, press **INDEX** .
- Up to 20 programmes can be searched for in both directions.
- When the opposite **INDEX** button is pressed, the number shall be decreased till 1.
- The figure on the display is decremented by 1 each time an index signal is located. Bear in mind that the display will be decremented in this way even while either **INDEX** button is being pressed.
- The **INDEX** search function can only work correctly, if the index signals are spaced at least 3 minutes apart in the SP mode and 5 minutes apart in the LP mode.



To adjust the tracking and the vertical locking



For manual tracking adjustment

The + and - buttons are used to adjust the tracking when, for example, noise bars on the picture are better removed manually than by the automatic digital tracking control.

Press both buttons together to return to automatic digital tracking control.

For slow tracking adjustment

When noise bars appear during Still or Slow playback, switch over to slow playback and adjust with the + or - button to reduce the noise bars.

For vertical locking adjustment

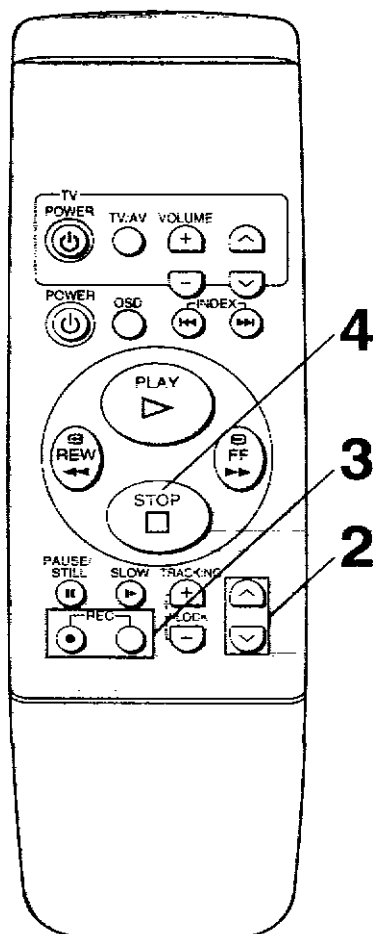
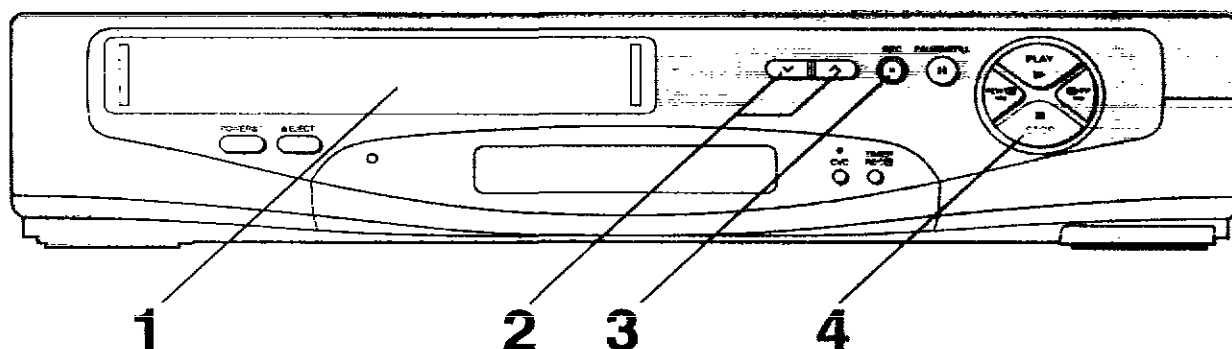
Use the + and - buttons to minimize any vertical jitter during still-picture playback.

- Even after manual adjustment, noise bars or vertical jitter may not be eliminated completely, especially for tapes recorded on another VCR. This is not malfunction.

Notes:

- Cue, review or slow playback will be automatically released after 10 minutes, and still playback after 5 minutes.
- In "LP" mode only:
 1. During any playback mode other than normal playback, the picture may have some noise bars, the colour may be unstable, or a black and white picture may appear.
 2. When playing back a tape which was recorded on another VCR, it may be necessary to adjust the Tracking Control. In some cases the picture quality may still be inferior. This is due to limitation of format.

Manual Recording



Operations Display Symbols

1			Insert a cassette tape. • If it has already been inserted, press POWER to turn the VCR on.
2	 		Select TV station.
3			Start recording.
4			Stop recording.

To select the Desired Tape Speed

Press **RECORDING SP/LP** before recording.



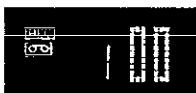
SP gives the best picture quality.

LP gives the longest recording time.

To Interrupt Recording

Press **PAUSE/STILL** during recording.

Press again to continue recording.

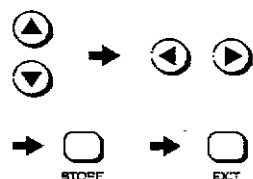


To record One TV Programme while Viewing Another Programme

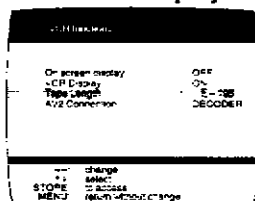
- 1 Refer to the manual recording operations steps 1 to 3 (page 20).
- 2 Select the TV programme on your TV set you wish to view at the present time.

To display the Approximate Remaining Tape Time

- 1 Select **Tape Length** from On Screen Display and select the corresponding cassette tape length. See page 33.



On Screen Display



- ◀ E-180: For E30, -60, -90, -120 and -180 tapes.
- E-195: For E195 tape.
- E-240: For E240 tape.
- E-260 ▶: For E260 and -300 tapes.

- 2 Press **DISPLAY**.

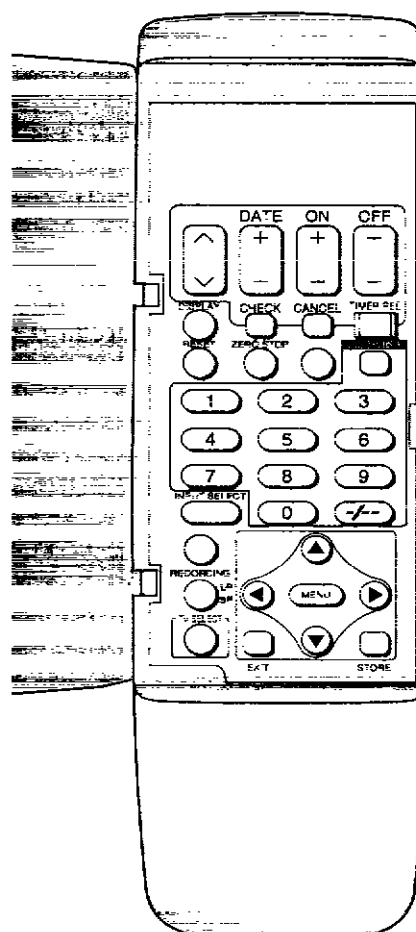


→ Clock → Counter → **Remaining Tape Time** →

- The remaining tape time may not be displayed correctly depending on the tape used.

Notes:

- When a video cassette with a broken off tab is inserted, the "ERR" indication will flash to indicate that recording is not possible.
- The recording pause mode will be automatically released after 5 minutes and be back to the stop mode.



Advanced Operations

Timer Recording

Up to 8 timer programmes can be recorded up to one month in advance by setting the timer.

Editing

Assembly Editing

This enables you to record a new segment immediately after a previously recorded segment.

Other Functions

On Screen Display

Other Automatic Functions

Timer Recording

Using On Screen Display

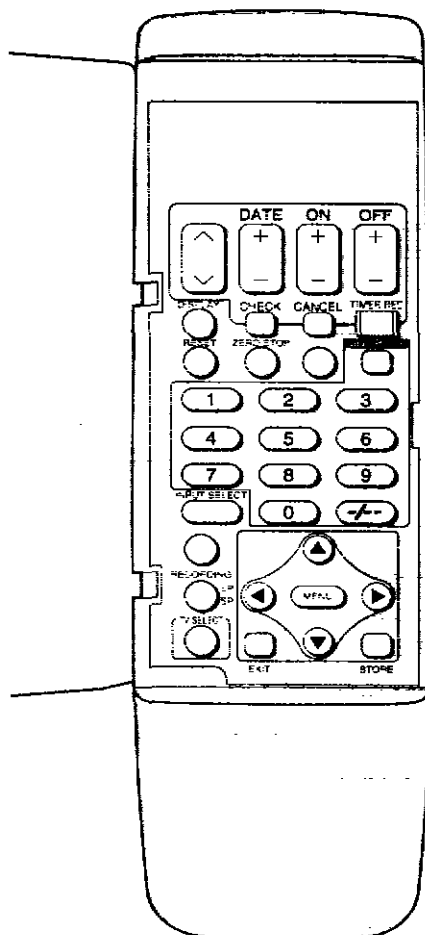
Up to 8 timer programmes can be recorded up to one month in advance by setting the timer, including weekly and daily programmes.

Preparations

- Insert a cassette tape with an intact erasure prevention tab.
- Confirm that the TV is on and the VCR viewing channel is selected.

For Example:

Programme position (channel); 2
 Date; 27th, October
 Starting time; 20:02
 Ending time; 21:30
 (Present date; 16th, October)



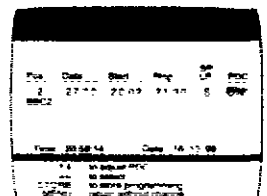
Follow the operation guide on screen display.

Set each item by using ▲ ▼ ◀ ▶ or ▲ ▼, DATE, ON, OFF.

Operations

- 1 Press **MENU**, and then select **Timer recording**.
- 2 Select the unoccupied position.
- 3 Set **Programme position** (channel) "2".
- 4 Set **Date** "27/10".
- 5 Set **Starting time** "20:02".
 • When it is kept pressed, the indication changes in 30-minute steps.
- 6 Set **Ending time** "21:30".
- 7 Select the desired **Tape speed** (SP/LP).
- 8 Select **PDC ON** or **OFF (---**).
 • PDC is automatically set to ON if the TV station transmits PDC signals. But it can be set to OFF manually if desired.
- 9 Press **STORE**.
- 10 To activate timer recording, press **TIMER REC**.

On Screen Display



Weekly Timer Recording

In step 4, select the desired day by pressing ▼.

Daily Timer Recording

For this timer function, several groups of days can be selected.

- (A) Daily recording from Monday to Friday.
- (B) Daily recording from Monday to Saturday.
- (C) Daily recording from Sunday to Saturday.

In step 4, select the desired days by pressing ▼.

Timer Recording from External Signal Source

If Timer Recording is performed by a unit connected to the AV1 or AV2 socket, select the A1 or A2 indicator for the programme position.

Setting other Programmes in Succession

Repeat steps 2–9.

Checking a Timer Programme

- The VCR must be turned on.
- Confirm that the TV is on and the VCR viewing channel is selected.

Press **CHECK**.

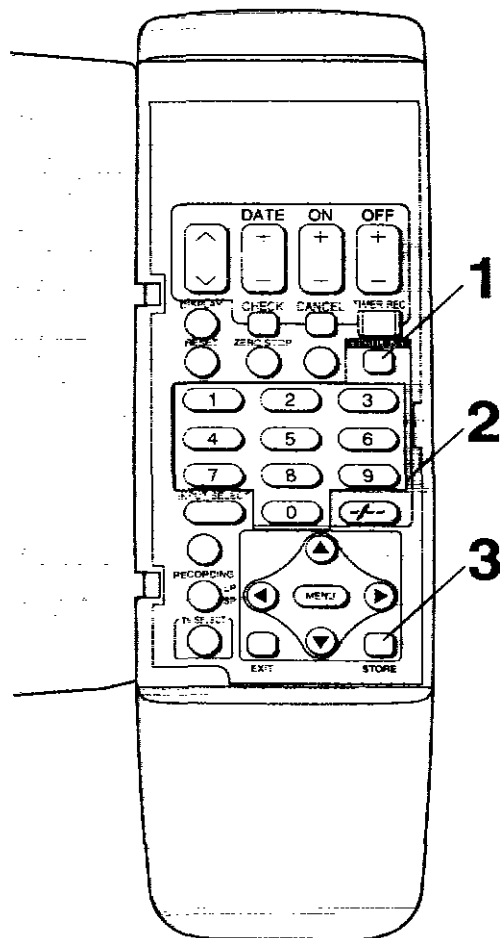
- On Screen Display may be distorted in the PDC/VPS recording standby mode.

On Screen Display

Pos	Name	Date	Start	Stop	SP	PDC
4	BBC2	17-12	21:00	22:00	SP	ON
A1	BBC2	18-12	21:00	22:00	SP	ON
A	BBC2	19-12	21:00	22:00	SP	ON
A	BBC2	20-12	21:00	22:00	SP	ON
A	BBC2	21-12	21:00	22:00	SP	ON
A	BBC2	22-12	21:00	22:00	SP	ON
A	BBC2	23-12	21:00	22:00	SP	ON
A	BBC2	24-12	21:00	22:00	SP	ON
A	BBC2	25-12	21:00	22:00	SP	ON
A	BBC2	26-12	21:00	22:00	SP	ON
A	BBC2	27-12	21:00	22:00	SP	ON
A	BBC2	28-12	21:00	22:00	SP	ON
A	BBC2	29-12	21:00	22:00	SP	ON
A	BBC2	30-12	21:00	22:00	SP	ON
A	BBC2	31-12	21:00	22:00	SP	ON
A	BBC2	1-1-81	21:00	22:00	SP	ON
A	BBC2	2-1-81	21:00	22:00	SP	ON
A	BBC2	3-1-81	21:00	22:00	SP	ON
A	BBC2	4-1-81	21:00	22:00	SP	ON
A	BBC2	5-1-81	21:00	22:00	SP	ON
A	BBC2	6-1-81	21:00	22:00	SP	ON
A	BBC2	7-1-81	21:00	22:00	SP	ON
A	BBC2	8-1-81	21:00	22:00	SP	ON
A	BBC2	9-1-81	21:00	22:00	SP	ON
A	BBC2	10-1-81	21:00	22:00	SP	ON
A	BBC2	11-1-81	21:00	22:00	SP	ON
A	BBC2	12-1-81	21:00	22:00	SP	ON
A	BBC2	13-1-81	21:00	22:00	SP	ON
A	BBC2	14-1-81	21:00	22:00	SP	ON
A	BBC2	15-1-81	21:00	22:00	SP	ON
A	BBC2	16-1-81	21:00	22:00	SP	ON
A	BBC2	17-1-81	21:00	22:00	SP	ON
A	BBC2	18-1-81	21:00	22:00	SP	ON
A	BBC2	19-1-81	21:00	22:00	SP	ON
A	BBC2	20-1-81	21:00	22:00	SP	ON
A	BBC2	21-1-81	21:00	22:00	SP	ON
A	BBC2	22-1-81	21:00	22:00	SP	ON
A	BBC2	23-1-81	21:00	22:00	SP	ON
A	BBC2	24-1-81	21:00	22:00	SP	ON
A	BBC2	25-1-81	21:00	22:00	SP	ON
A	BBC2	26-1-81	21:00	22:00	SP	ON
A	BBC2	27-1-81	21:00	22:00	SP	ON
A	BBC2	28-1-81	21:00	22:00	SP	ON
A	BBC2	29-1-81	21:00	22:00	SP	ON
A	BBC2	30-1-81	21:00	22:00	SP	ON
A	BBC2	31-1-81	21:00	22:00	SP	ON
A	BBC2	1-2-81	21:00	22:00	SP	ON
A	BBC2	2-2-81	21:00	22:00	SP	ON
A	BBC2	3-2-81	21:00	22:00	SP	ON
A	BBC2	4-2-81	21:00	22:00	SP	ON
A	BBC2	5-2-81	21:00	22:00	SP	ON
A	BBC2	6-2-81	21:00	22:00	SP	ON
A	BBC2	7-2-81	21:00	22:00	SP	ON
A	BBC2	8-2-81	21:00	22:00	SP	ON
A	BBC2	9-2-81	21:00	22:00	SP	ON
A	BBC2	10-2-81	21:00	22:00	SP	ON
A	BBC2	11-2-81	21:00	22:00	SP	ON
A	BBC2	12-2-81	21:00	22:00	SP	ON
A	BBC2	13-2-81	21:00	22:00	SP	ON
A	BBC2	14-2-81	21:00	22:00	SP	ON
A	BBC2	15-2-81	21:00	22:00	SP	ON
A	BBC2	16-2-81	21:00	22:00	SP	ON
A	BBC2	17-2-81	21:00	22:00	SP	ON
A	BBC2	18-2-81	21:00	22:00	SP	ON
A	BBC2	19-2-81	21:00	22:00	SP	ON
A	BBC2	20-2-81	21:00	22:00	SP	ON
A	BBC2	21-2-81	21:00	22:00	SP	ON
A	BBC2	22-2-81	21:00	22:00	SP	ON
A	BBC2	23-2-81	21:00	22:00	SP	ON
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A	BBC2	27-2-81	21:00	22:00	SP	ON
A	BBC2	28-2-81	21:00	22:00	SP	ON
A	BBC2	29-2-81	21:00	22:00	SP	ON
A	BBC2	30-2-81	21:00	22:00	SP	ON
A	BBC2	31-2-81	21:00	22:00	SP	ON
A	BBC2	1-3-81	21:00	22:00	SP	ON
A	BBC2	2-3-81	21:00	22:00	SP	ON
A	BBC2	3-3-81	21:00	22:00	SP	ON
A	BBC2	4-3-81	21:00	22:00	SP	ON
A	BBC2	5-3-81	21:00	22:00	SP	ON
A	BBC2	6-3-81	21:00	22:00	SP	ON
A	BBC2	7-3-81	21:00	22:00	SP	ON
A	BBC2	8-3-81	21:00	22:00	SP	ON
A	BBC2	9-3-81	21:00	22:00	SP	ON
A	BBC2	10-3-81	21:00	22:00	SP	ON
A	BBC2	11-3-81	21:00	22:00	SP	ON
A	BBC2	12-3-81	21:00	22:00	SP	ON
A	BBC2	13-3-81	21:00	22:00	SP	ON
A	BBC2	14-3-81	21:00	22:00	SP	ON
A	BBC2	15-3-81	21:00	22:00	SP	ON
A	BBC2	16-3-81	21:00	22:00	SP	ON
A	BBC2	17-3-81	21:00	22:00	SP	ON
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A	BBC2	19-3-81	21:00	22:00	SP	ON
A	BBC2	20-3-81	21:00	22:00	SP	ON
A	BBC2	21-3-81	21:00	22:00	SP	ON
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A	BBC2	23-3-81	21:00	22:00	SP	ON
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A	BBC2	26-3-81	21:00	22:00	SP	ON
A	BBC2	27-3-81	21:00	22:00	SP	ON
A	BBC2	28-3-81	21:00	22:00	SP	ON
A	BBC2	29-3-81	21:00	22:00	SP	ON
A	BBC2	30-3-81	21:00	22:00	SP	ON
A	BBC2	31-3-81	21:00	22:00	SP	ON
A	BBC2	1-4-81	21:00	22:00	SP	ON
A	BBC2	2-4-81	21:00	22:00	SP	ON
A	BBC2	3-4-81	21:00	22:00	SP	ON
A	BBC2	4-4-81	21:00	22:00	SP	ON
A	BBC2	5-4-81	21:00	22:00	SP	ON
A	BBC2	6-4-81	21:00	22:00	SP	ON
A	BBC2	7-4-81	21:00	22:00	SP	ON
A	BBC2	8-4-81	21:00	22:00	SP	ON
A	BBC2	9-4-81	21:00	22:00	SP	ON
A	BBC2	10-4-81	21:00	22:00	SP	ON
A	BBC2	11-4-81	21:00	22:00	SP	ON
A	BBC2	12-4-81	21:00	22:00	SP	ON
A	BBC2	13-4-81	21:00	22:00	SP	ON
A	BBC2	14-4-81	21:00	22:00	SP	ON
A	BBC2	15-4-81	21:00	22:00	SP	ON
A	BBC2	16-4-81	21:00	22:00	SP	ON
A	BBC2	17-4-81	21:00	22:00	SP	ON
A	BBC2	18-4-81	21:00	22:00	SP	ON
A	BBC2	19-4-81	21:00	22:00	SP	ON
A	BBC2	20-4-81	21:00	22:00	SP	ON
A	BBC2	21-4-81	21:00	22:00	SP	ON
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A	BBC2	25-4-81	21:00	22:00	SP	ON
A	BBC2	26-4-81	21:00	22:00	SP	ON
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A	BBC2	29-4-81	21:00	22:00	SP	ON
A	BBC2	30-4-81	21:00	22:00	SP	ON
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A	BBC2	3-5-81	21:00	22:00	SP	ON
A	BBC2	4-5-81	21:00	22:00	SP	ON
A	BBC2	5-5-81	21:00	22:00	SP	ON
A	BBC2	6-5-81	21:00	22:00	SP	ON
A	BBC2	7-5-81	21:00	22:00	SP	ON
A	BBC2	8-5-81	21:00	22:00	SP	ON
A	BBC2	9-5-81	21:00	22:00	SP	ON
A	BBC2	10-5-81	21:00	22:00	SP	ON
A	BBC2	11-5-81	21:00	22:00	SP	ON
A	BBC2	12-5-81	21:00	22:00	SP	ON
A	BBC2	13-5-81	21:00	22:00	SP	ON
A	BBC2	14-5-81	21:00	22:00	SP	ON
A	BBC2	15-5-81	21:00	22:00	SP	ON
A	BBC2	16-5-81	21:00	22:00	SP	ON
A	BBC2	17-5-81	21:00	22:00	SP	ON
A	BBC2	18-5-81	21:00	22:00	SP	ON
A	BBC2	19-5-81	21:00	22:00	SP	ON
A	BBC2	20-5-81	21:00	22:00	SP	ON
A	BBC2	21-5-81	21:00	22:00	SP	ON
A	BBC2	22-5-81	21:00	22:00	SP	ON
A	BBC2	23-5-81	21:00	22:00	SP	ON
A	BBC2	24-5-81	21:00	22:00	SP	ON
A	BBC2	25-5-81	21:00	22:00	SP	ON
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A	BBC2	28-5-81	21:00	22:00	SP	ON
A	BBC2	29-5-81	21:00	22:00	SP	ON
A	BBC2	30-5-81	21:00	22:00	SP	ON
A	BBC2	31-5-81	21:00	22:00	SP	ON
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A	BBC2	2-6-81	21:00	22:00	SP	ON
A	BBC2	3-6-81	21:00	22:00	SP	ON
A	BBC2	4-6-81	21:00	22:00	SP	ON
A	BBC2	5-6-81	21:00	22:00	SP	ON
A	BBC2	6-6-81	21:00	22:00	SP	ON
A	BBC2	7-6-81	21:00	22:00	SP	ON
A	BBC2	8-6-81	21:00	22:00	SP	ON
A	BBC2	9-6-81	21:00	22:00	SP	ON
A	BBC2	10-6-81	21:00	22:00	SP	ON
A	BBC2	11-6-81	21:00	22:00	SP	ON
A	BBC2	12-6-81	21:00	22:00	SP	ON
A	BBC2	13-6-81	21:00	22:00	SP	ON
A	BBC2	14-6-81	21:00	22:00	SP	ON
A	BBC2	15-6-81	21:00	22:00	SP	ON
A	BBC2	16-6-81	21:00	22:00	SP	ON
A	BBC2	17-6-81	21:00	22:00	SP	ON
A	BBC2	18-6-81	21:00	22:00	SP	ON
A	BBC2	19-6-81	21:00	22:00	SP	ON
A	BBC2	20-6-81	21:00	22:00	SP	ON
A	BBC2	21-6-81	21:00	22:00	SP	ON
A	BBC2	22-6-81	21:00	22:00	SP	ON
A	BBC2	23-6-81	21:00	22:00	SP	ON
A	BBC2	24-6-81	21:00	22:00	SP	ON
A	BBC2	25-6-81	21:00	22:00	SP	ON
A	BBC2	26-6-81	21:00	22:00	SP	ON
A	BBC2	27-6-81	21:00	22:00	SP	ON
A	BBC2	28-6-81	21:00	22:00	SP	ON
A	BBC2	29-6-81	21:00	22:00	SP	ON
A	BBC2	30-6-81	21:00	22:00	SP	ON
A	BBC2	31-6-81	21:00	22:00	SP	ON
A	BBC2	1-7-81	21:00	22:00	SP	ON
A	BBC2	2-7-81	21:00	22:00	SP	ON
A	BBC2	3-7-81	21:00	22:00	SP	ON
A	BBC2	4-7-81	21:00	22:00	SP	ON
A	BBC2	5-7-81	21:00	22:00	SP	ON
A	BBC2	6-7-81	21:00	22:00	SP	ON
A						

Programming the Video Plus+ PlusCode

Programming is now easier than ever: simply enter the PlusCode provided in the programme schedule column carried by newspapers and magazines. PlusCodes are numbers which are assigned to each programme listed in the TV programme schedule carried in newspapers and TV guides. When these codes are entered and **STORE** is pressed, the codes are converted into the actual programming.



Preparations

- Insert a cassette tape with an intact erasure prevention tab.
- Confirm that the TV is on and the VCR viewing channel is selected.

Operations

Display Symbols

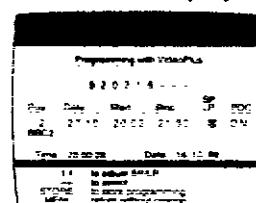
1 Press VIDEO PLUS+.



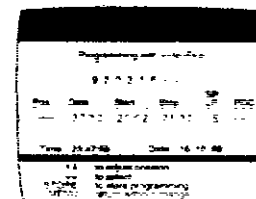
2 Enter a PlusCode. Example: 920216

3 Press STORE.

On Screen Display



- The VCR will be in the timer recording standby mode after about 1 minute.
- If the "—" appears in the programme position:



- select the programme position of your VCR which receives the TV station you entered at step 2 using button **▲** or **▼**.
- To extend the ending time or to make any corrections, use buttons **▲ ▼ ◀ ▶** or **▲ ▼**, **DATE, ON, OFF**.

Notes:

- To release from the standby mode, press **TIMER REC**.
- When the PlusCode is used for programming, the recording time may be slightly longer than the actual programme time.
- When programming two or more programmes, repeat steps 1-3.
- The procedures for checking and cancelling a timer programme are the same as on page 25.

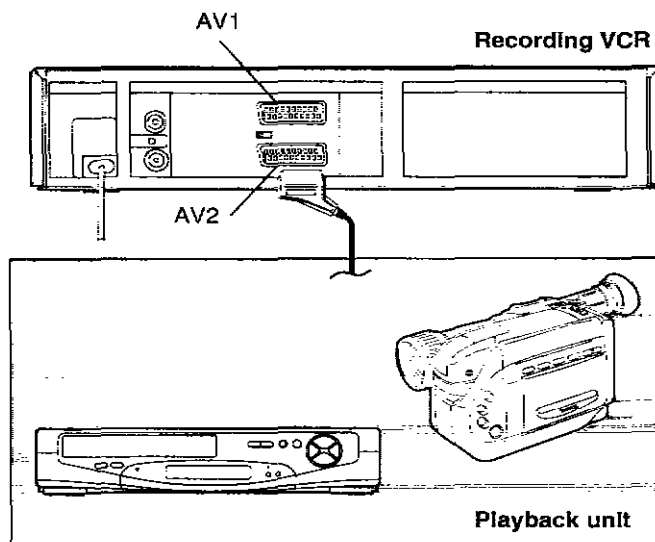
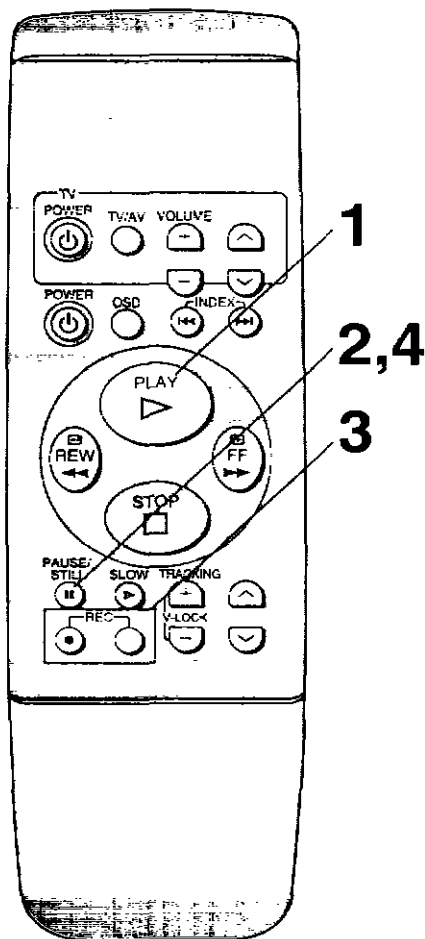
Assembly Editing

This function can be used to make up an edited tape from other recordings or video sources.

A new scene can be added to the end of a previous one.

Preparations

- Connect a movie camera or another VCR to this VCR as shown.
- Insert a recorded cassette tape with an intact erasure prevention tab.
- Select the video source required by pressing **INPUT SELECT** to set A1 or A2.
A1: Through AV1 socket.
A2: Through AV2 socket.



Operations

- 1 Search for the end of the previous recording.



- 2 Press **PAUSE/STILL**.



- 3 Press **REC** to switch the VCR from the pause mode to the recording standby mode.



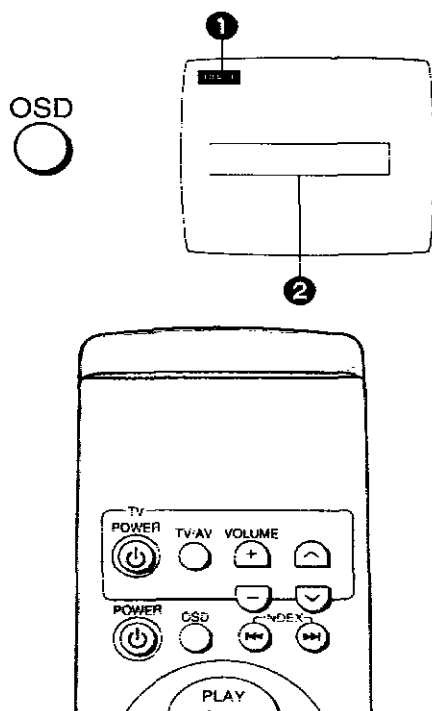
- 4 Start the new recording by pressing **PAUSE/STILL** again.



Other Functions

On Screen Display

Press **OSD** to make the On Screen Display appear on the TV screen.



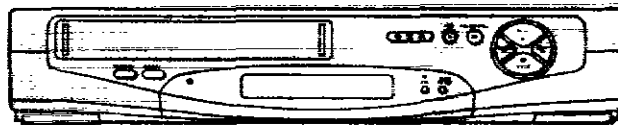
① TV station

② Error message

Notes:

- On Screen Display may be disturbed or disappear during special playback.
- When the item "On screen display" is set to OFF, the On Screen Display (except for the error message) will not appear. (See page 32.)

Other Automatic Functions



Automatic Playback

When a cassette without an erasure prevention tab is inserted, the VCR starts playback automatically.

VCR-off Playback

When the VCR is off, an inserted cassette can be played back by pressing **PLAY**.

Automatic Rewinding

When the tape reaches its end during recording (except for timer recording) or playback, it will automatically be rewound to the beginning.

Automatic Switching Off and Ejection

When the VCR is switched off, an inserted cassette can be ejected simply by pressing **EJECT**. The VCR will eject the cassette and automatically turn itself off again.

Various Settings

Storing TV Broadcasts into your VCR

The VCR is fitted with its own TV tuner (just like a normal TV set) and can be tuned to receive up to 99 TV broadcast stations.

Settings Using On Screen Display

Setting the Remote Controller for Operation of your TV

You can operate some makes of TVs using the supplied Remote Controller after this setting up.

Setting the Clock of your VCR

The built-in clock is used to activate the timer for automatic recording and must be set to the correct time.

Storing TV Broadcasts into your VCR

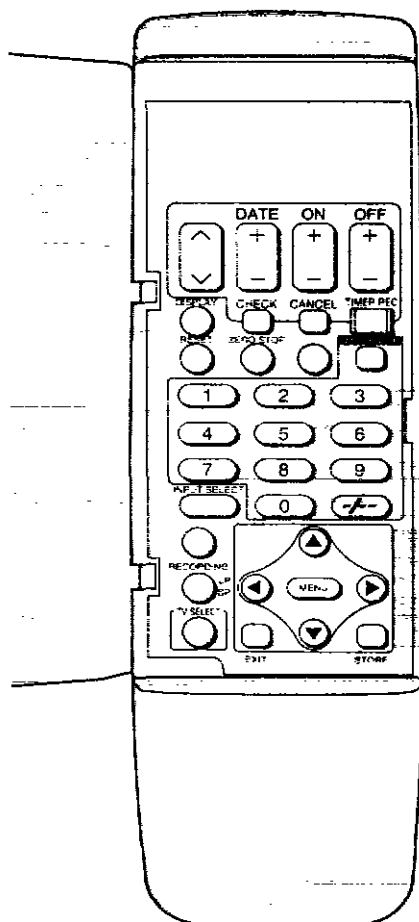
Introduction

The VCR is fitted with its own tuner (just like a normal TV set) and can be pre-set to receive up to 99 TV broadcast stations.

If VCR is not correctly tuned by Auto setup, follow the procedure below.

Preparation

Confirm that the TV is on and the VCR viewing channel is selected.



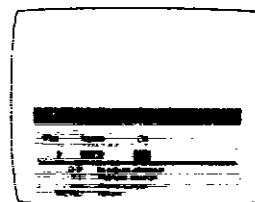
Manual Tuning Procedure

Follow the operation guide on screen display.

Operations

- 1** Press **MENU**.
- 2** Select **Settings**.
- 3** Select **Tuning**.
- 4** Select **Manual**.
- 5** Select desired programme position.
- 6** Select **Channel (Ch)**.

On Screen Display



- 7** Press **MENU**, and then press **EXIT**.

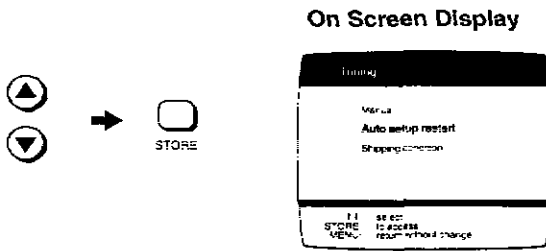
To change the programme position or TV station name:

After step 5 but before step 7, select the programme position (**Pos**) or TV station name (**Name**) item using **◀ ▶**, and then make the desired change.

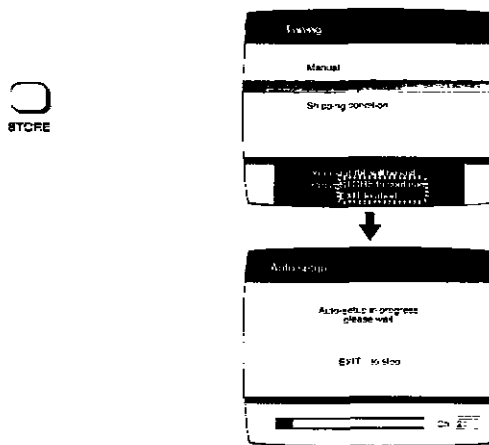
Auto Setup Restart

When your address changes, follow the procedure below. Follow the steps 1 to 3 on page 30.

4 Select Auto setup restart.



5 Press STORE.



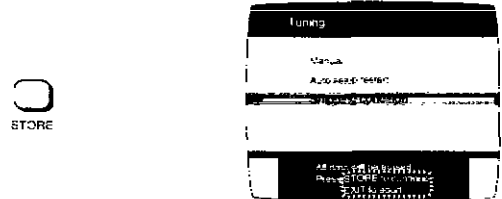
Shipping Condition

If you want to return the VCR to the factory-preset condition, follow the procedure below. Follow the steps 1 to 3 on page 30.

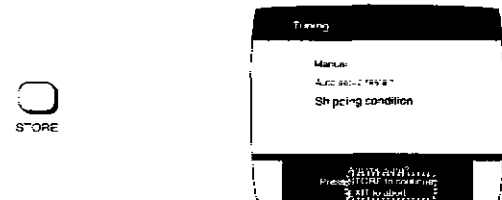
4 Select Shipping condition.



5 Press STORE.



6 Press STORE again.



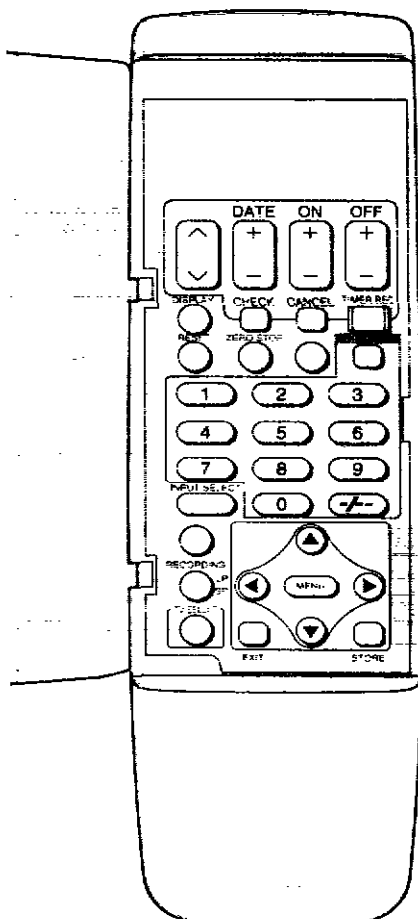
Note:

To re-tune VCR, disconnect mains lead and then reconnect mains lead. If VCR is off, turn on the VCR. Auto setup starts.

Settings Using On Screen Display

Preparations

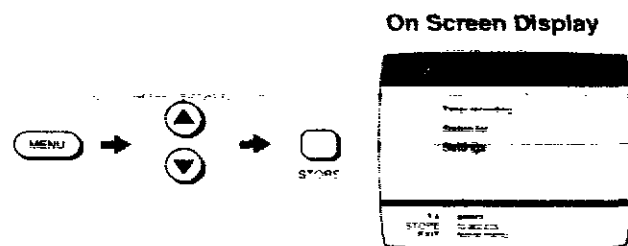
- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.



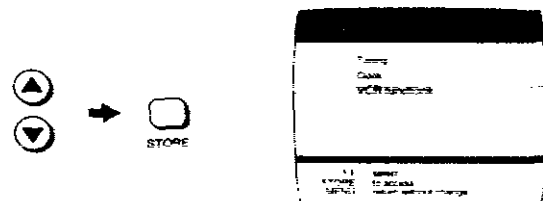
VCR functions

On Screen Display

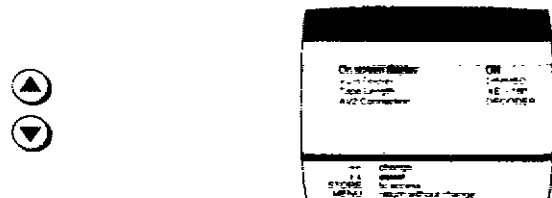
- 1 Press **MENU**, and then select **Settings**.



- 2 Select **VCR functions**.



- 3 Select **On screen display**.



- 4 Select **ON** or **OFF**.



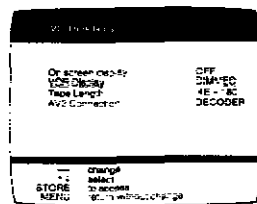
ON: The On Screen Display will appear on the TV screen by pressing **OSD**.

OFF: The On Screen Display will not appear even if **OSD** is pressed.

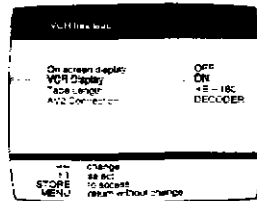
VCR Display

1 Select VCR Display.

On Screen Display



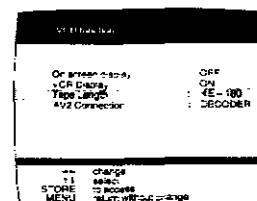
2 Select ON, OFF or DIMMED.



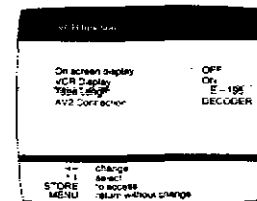
- ON:** When VCR is turned off, the characters are lit in the VCR display.
- OFF:** When VCR is turned off, the characters are not lit in the VCR display.
- DIMMED:** When VCR is turned off, the characters are dimmed in the VCR display.

To select the Corresponding Cassette Tape Length for Displaying the Approximate Remaining Tape Time

1 Select Tape Length.



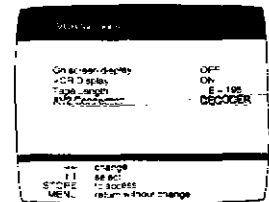
2 Select the corresponding cassette tape length.



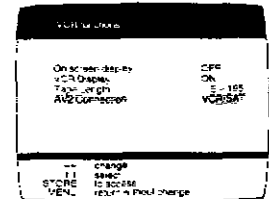
- ◀ E-180: For E30, -60, -90, -120 and -180 tapes.
E-195: For E195 tape.
E-240: For E240 tape.
E-260 ▶: For E260 and -300 tapes.

AV2 Connection

1 Select AV2 Connection.



2 Select VCR/SAT or DECODER.



- VCR/SAT:** When another VCR or the satellite receiver is connected to the AV2 socket.
- DECODER:** When the decoder is connected to the AV2 socket.

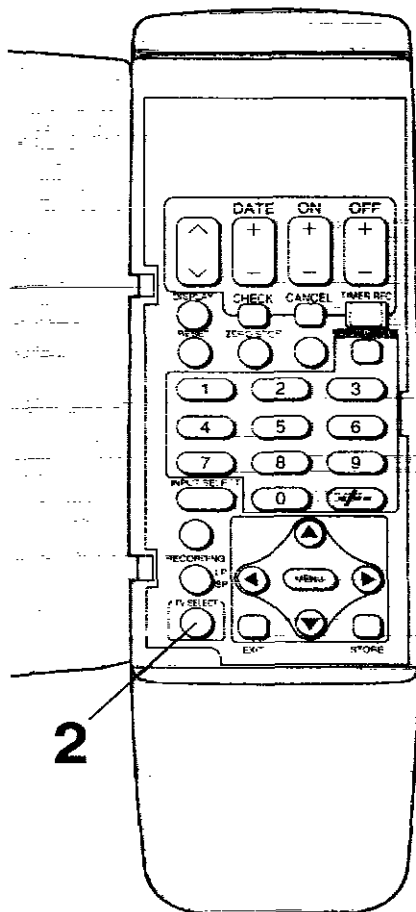
After All Settings are selected

Press **STORE**, and then press **EXIT** to make On Screen Display disappear.



Setting the Remote Controller for Operation of your TV

You can operate some TV manufacturers (see next page) using the supplied Remote Controller after this setting up.



Preparation

Install the batteries in the remote controller. See page 13.

Operations

- 1 Turn on the TV.
- 2 Press corresponding operation button to your TV manufacturer (see following table) while keeping **TV SELECT** pressed.
 - If setting is correct, TV will be turned off automatically.

Note:

Some TV models cannot be operated using this remote controller.

Setting the Remote Controller for Operation of your TV

TV Manufacturer	Operation Button
Panasonic	TV SELECT + 
	TV SELECT + 
	TV SELECT + DATE + 
	TV SELECT + DATE - 
GRUNDIG, Blaupunkt, SIEMENS	TV SELECT + ON + 
PHILIPS, LOEWE, SAMSUNG, RADIOLA, DUAL, PYE, BUSH, GOODMAN, ELEMIS CURTIS	TV SELECT + ON - 
SONY	TV SELECT + OFF + 
METZ	TV SELECT + OFF - 
FERGUSON, THOMSON, TELEFUNKEN, GOODMAN, SABA	TV SELECT + DISPLAY 
FERGUSON, THOMSON, TELEFUNKEN, GOODMAN	TV SELECT + CHECK 
FERGUSON, THOMSON, TELEFUNKEN, GOODMAN, SABA	TV SELECT + CANCEL 
FERGUSON, TELEFUNKEN, GOODMAN, SABA	TV SELECT + TIMER REC 
TELEFUNKEN	TV SELECT + RESET 
FERGUSON, THOMSON, TELEFUNKEN, GOODMAN, SABA	TV SELECT + ZERO STOP 
HITACHI	TV SELECT + VIDEO PLUS 
	TV SELECT + 1 
SIEMENS	TV SELECT + 2 
	TV SELECT + 3 
SAMSUNG	TV SELECT + 4 

TV Manufacturer	Operation Button
ITT, NOKIA, SELECO	TV SELECT + 5 
NOKIA, SALORA	TV SELECT + 6 
MIVAR	TV SELECT + 7 
TOSHIBA	TV SELECT + 8 
SANYO	TV SELECT + 9 
JVC	TV SELECT + 0 
SHARP	TV SELECT + INPUT SELECT 
MITSUBISHI	TV SELECT + 
TELEFUNKEN	TV SELECT + EXIT 

When the TV manufacturer is Panasonic or HITACHI:
When the TV's power is turned off in step 2 above, turn it back on and adjust the TV's volume using this remote controller. The volume can be adjusted if the operation button matches the TV manufacturer.

If it is not possible to adjust the TV's volume, try pressing the other operation button to match the TV manufacturer again until the volume can be adjusted.

When the TV manufacturer is FERGUSON, THOMSON, TELEFUNKEN, GOODMAN, SABA, NORDMENDE or BRANDT:

How to change the programme position of TV:

- 1 Press **^** (TV) to make **POS** appear on screen display.
- 2 Press **VOLUME +** or **-**.
 - To adjust the TV's volume using the remote controller after that, press **^** (TV) to make **POS** on screen display disappear and then adjust the volume. For some models, **POS** disappears automatically after several seconds. In these cases, this operation is not necessary.

Note:
FERGUSON, THOMSON, TELEFUNKEN, GOODMAN and SABA have plural operation buttons. Although some models may operate with any of these operation buttons, other models may operate with only one operation button. Check each operation button in turn, and set the optimal operation button.

Setting the Clock of your VCR

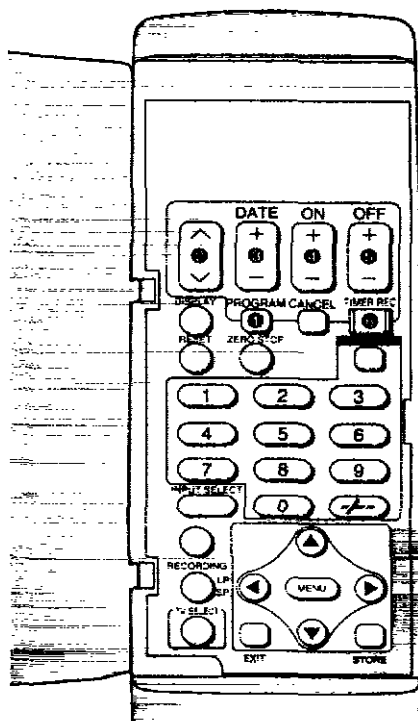
The built-in clock is used to activate the timer for automatic recording and must be set to the correct time.

The built-in digital clock employs the 24-hour system.

If VCR is not correctly set by Auto setup, follow the procedure below.

Preparations

- Confirm that the TV is on and the VCR viewing channel is selected.
- Turn on the VCR.

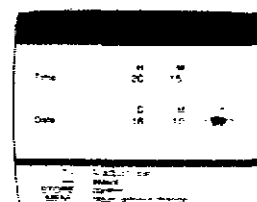


5 Set Date (D).

6 Set Month (M).

7 Set Year (Y).

On Screen Display



8 Press STORE.

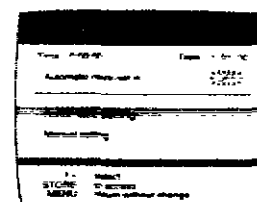
- The clock will start.

9 Press EXIT.

Automatic Clock Setting

Follow steps 1 to 2 of the above procedure.

3 Select Automatic setting.



4 Press STORE.

- The clock is set automatically.

Notes:

- The clock operates for at least 60 minutes by its backup system in the event of power failure.
- When the item "Automatic clock-set is" is ON on screen display, Automatic time correcting function is activated.
The Automatic time correcting function will only work when the VCR is in standby. This function will only work during timer recording standby mode.

Manual Clock Setting

Follow the operation guide on screen display.

Operations

1 Press MENU, and then select Settings.

2 Select Clock.

3 Select Manual setting.

4 Set Time (H/M).

- When it is kept pressed, the indication changes in 30-minute steps.

Helpful Hints

Before Requesting Service

Before requesting service, check the following points once again.

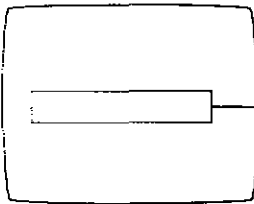
Precautions

Please read these cautions before you operate this VCR.

Specifications

Before Requesting Service

Before requesting service, check the following points once again.

Message of On Screen Display		
 Message of On Screen Display is displayed.		
MESSAGE	CAUSE	REMEDY
This action is not possible before time and date is set	VIDEO PLUS + is pressed when date and time is not set.	Set date and time.
Please insert video tape	REC, PLAY, FF or REW is pressed when no cassette in the VCR.	Insert a video cassette.
Please use unprotected tape	REC is pressed without tab of Cassette.	Use a cassette with tab.

Self Test Indication		
This VCR has a self-diagnosis and display function. If the VCR detects trouble during installation or during use, the following indications automatically appear in the VCR display. Indications are displayed in the form of a single English letter plus two numbers such as [H01].		
INDICATION	CAUSE	REMEDY
H □ □	Some trouble has occurred. (Numbers following H and F differ according to the status of the VCR.)	Consult your dealer for further advice.
F □ □		

VCR will not operate correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
VCR display is not illuminated.	Mains lead is not connected.	Reconnect mains lead to VCR.	
	VCR Display setting is OFF.	Set VCR Display to ON or DIMMED. See page 33.	
VCR display is illuminated but VCR will not operate.	VCR is in timer mode.	Press TIMER REC to operate VCR manually.	
	Safety devices are operating.	Disconnect mains lead and wait for 1 minute. Reconnect mains supply and check functions.	
	Condensation may have formed.	Do not operate VCR for 1 hour.	

Playback will not operate correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
Picture noisy or not in colour. Horizontal bars or lines run down the screen.	Tracking is not correct.	Adjust the tracking. See page 19.	
	TV set is not tuned to VCR.	Operate RF OFF/TEST SIGNAL on VCR and check TV tuning. See page 10.	
	Video heads are clogged or worn.	Consult your dealer for further advice. Head cleaning by service agent is not covered by warranty.	

Recording will not operate correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
"no" indication flashes whenever recording is attempted.	Erase prevention tab on cassette is broken off.	Use tape with intact erasure prevention tab, or cover tab hole with adhesive tape, if original recording is no longer required.	
Picture is recorded with noise or blank screen.	Aerial or aerial lead is defective.	Check aerial connection to VCR. See page 8. Check your normal TV picture. If there is no picture, check your aerial.	
	VCR is not correctly tuned.	Re-tune VCR. See pages 30–31.	
	A1 or A2 is selected.	Select the required TV programme.	
Timer recording cannot be performed.	Clock or calendar is incorrectly set.	Check clock and calendar. Set to present time. (Note this is a 24 hour clock.) See page 34.	
	Recording start or end time setting is incorrect.	Set recording start and end time correctly.	
	VCR is not set for timer recording.	Press TIMER REC after programming for timer recording.	
AV external recordings cannot be made.	A1 or A2 is not selected.	Select A1 or A2 by pressing INPUT SELECT .	
	External AV connections are incorrect.	Check that connections for external video and audio source are correct. See page 27.	

Remote controller will not work correctly			
SYMPTOM	CAUSE	REMEDY	CHECKED
Remote controller does not operate correctly.	Remote controller transmitter beam is not reaching VCR.	Ensure that remote controller is being pointed at VCR and that transmitter beam is not obstructed.	
	Distance is too far.	Use remote controller within 7 m of VCR. If this range is not possible, replace batteries.	
	Batteries are exhausted.	Replace batteries. Note precaution for replacement on page 13.	
	Batteries are incorrectly fitted with (+/–) reversed.	Fit batteries correctly as shown on page 13.	

Precautions

Before Requesting Service
Precautions

Please read these cautions before you operate this VCR.

Avoid Sudden Changes In Temperature

If the VCR is suddenly moved from a cold place to a warm place, condensation may form on the tape and inside the VCR.

Humidity and Dust

Avoid places where there is high humidity or much dust, which may cause damage to internal parts.

Do Not Obstruct the Ventilation Holes

The ventilation holes prevent abnormal increases in temperature. Do not block or cover these holes. Especially avoid covering the holes with soft materials such as cloth or paper.

Keep away from High Temperature

Keep the VCR away from extreme direct heat such as direct sunlight, heating radiators, or closed automobiles.

Keep Magnets away

Never bring a magnet or magnetized object near the VCR because it will adversely affect the performance of the VCR.

No Fingers or Other Objects Inside

Touching internal parts of this VCR is dangerous, and may cause serious damage to the VCR. Do not attempt to disassemble the VCR. There are no user serviceable parts inside.

Keep Water away

Keep the VCR away from flower vases, tubs, sinks, etc. CAUTION: If liquids are spilled into the VCR, serious damage could occur. If you spill any liquid into the VCR, consult qualified service personnel.

Cleaning the VCR

Wipe the VCR with a clean, dry cloth. Never use cleaning fluid, or other chemicals. Do not use compressed air to remove dust.

Stacking

Place the VCR in a horizontal position, and do not place anything heavy on it.

Video Head Clogging

The video heads place picture signals on the tape during recording and read picture signals from the tape during playback and they are, therefore, of critical importance for the picture quality. To ensure that they can always provide optimum picture quality, this VCR is equipped with an Auto Head Cleaning Function that removes tape particles and dust from the video heads. However, if the VCR is used over extremely long periods of time, these heads may still become dirty and clogged. In such a case, the signals can no longer be recorded correctly, and the playback picture will be distorted accordingly. This is the case, for example, during the playback of a tape, the sound is reproduced normally, but no picture is seen, or the picture is greatly distorted. When such a symptom case occurs have the recorder checked by qualified service personnel.

Head cleaning by service agent is not covered by warranty.

Condensation may form in the VCR if:

- The VCR is in a room where the heater has just been turned on.
- The VCR is in a room with steam or high humidity.
- The VCR is brought from cold surroundings into a well-heated room.
- The VCR is suddenly brought from cool surroundings, such as an air-conditioned room or car, to a place which is hot and humid.

Note:

Do not operate the VCR for at least 1 hour if any of the above conditions occur.

This VCR does not incorporate a dew sensor.

Tape Care

Some do's and don'ts on tape care.

DO:

- 1) Use a good quality branded tape, such as Panasonic.
- 2) Keep in the Box supplied with your tape, or a video case, when not in use.
- 3) Try to use all the tape on a cassette by making recordings not only at the tape start but also in the middle and end sections. This will avoid many repeated recordings at the beginning of the tape resulting in premature wear.
- 4) Take care to insert a tape correctly into the VCR to avoid damage.

DO NOT:

- 1) Expose the tape to high humidity or temperature.
- 2) Expose to liquid.
- 3) Expose to dust particles by storing directly on a carpet for example.
- 4) Use a damaged tape or attempt to repair.
- 5) Dismantle the cassette housing.
- 6) Attempt to lift the front cassette flap or touch the tape surface.

Specifications

NV-SD400B...(U.K. model), BI...(EIRE model)

Power Source:	220-240 V AC 50-60 Hz	
Power Consumption:	21 watts	
Video Recording System:	2 rotary heads, helical scanning system	
Video Heads:	4 heads	
Tape Speed:	SP; 23.39 mm/sec. LP; 11.7 mm/sec.	
Tape Format:	VHS tape	
Record/Playback Time:	SP; 240 min. with NV-E240 LP; 480 min. with NV-E240	
VIDEO		
Television System:	CCIR; 625 lines, 50 fields, PAL colour signal	
Modulation System:	Luminance; FM azimuth recording Colour signal; converted subcarrier phase shift recording	
Input Level:	AV; 1.0 Vp-p,	75 ohm, terminated
Output Level:	AV; 1.0 Vp-p, RF Modulated; UHF channel 36 (± 6),	75 ohm, terminated 75 ohm
AUDIO		
Input Level:	AV; -6 dBV,	more than 10 kohm
Output Level:	AV; -6 dBV,	less than 1 kohm
Audio Track:	1 track (Normal-mono only)	
Video Horizontal Resolution:	Colour; more than 240 lines (SP)	
Signal-to-Noise Ratio:	Video; more than 43 dB (SP) Audio; more than 43 dB	
Audio Frequency Response:	80 Hz-10 kHz	
Operating Temperature:	5°C-40°C	
Operating Humidity:	35%-80%	
Weight:	4.7 kg	
Dimensions:	430 (W)×91 (H)×310 (D) mm	
Standard Accessories:	1 pc. RF Coaxial Cable 1 pc. Remote Controller 2 pcs. "R6" size batteries 1 pc. AC Mains Lead	

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.